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ICT Measurement for Iran: A Progress Report

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1. An Introduction to ICT Measurement for Iran

It is internationally accepted that measuring and monitoring information society has an important role in supporting and guiding policy makers and in determining progress as well as gaps and areas for further development and investment. A well-formed set of ICT indicators can assess the current and potential impact of ICTs on development and promotes capacity building in this domain. In Islamic Republic of Iran, policy makers have recognized the importance of measuring and monitoring ICTs and they have considered a specific article in the Fifth Socio-Economic and Cultural Development Plan of Iran (2011-2015) that instructs ICT ministry to develop a system for ICT measurement in the country till the end of second year of the plan. According to the plan, ICT ministry is responsible for measuring, monitoring and providing analytical reports and feedbacks for the decision makers.

ICT ministry has assigned one of its subsidiaries named Iran Information Technology Organization (ITO) to develop the ICT measurement system for Iran. This organization performed this assignment in the Fourth development plan and based on its previous experiences, this organization that acts as national coordinator for ICT measurement in Iran, has started this task with the help of Information Technology Research Center of Tarbiat Moddares University and Iran University of Science and Technology and Data Processing company (Parvaresh Dadeha). This initiative is an excellent successful working example of cooperation among government, academic and research bodies and private sector in Iran for achieving the country goals and objectives.

Designing a system for ICT measurement has been done in three stages: Planning, Design and Measurement. At the planning phase, the following activities were performed:

1- Identifying stakeholder needs
2- Study and analysis of Iran's high-level documents.
3- Study and analysis of some similar countries for using their experiences in this field.
4- Study and analysis of international reports, rankings and indicators.
5- Benchmarking and study of chosen countries.

In design phase, according to the outputs of phase one and existing experiences, architecture of ICT measurement system were designed. The main components of this architecture are the conceptual framework of ICT Measurement for Iran (IMI), Iran's ICT core indicators, periodic data collection processes and procedures, rules and regulations, international communications, and capacity building. The conceptual framework specifies the main priority areas for definition of indicators. This framework has been defined based on Iran's high-level policy documents and supply-demand model. The priority areas in this framework are as follows:

1- National facilitating Infrastructures
    1-1 ICT infrastructures
    1-2 Cyber security
    1-3 Revenue and investment in ICT
    1-4 ICT R&D
    1-5 Legal framework
    1-6 Culture and content in cyberspace
2- Key Functional areas
    2-1 e-government
    2-2 e-health
    2-3 e-learning
    2-4 e-commerce
    2-5 e-banking
    2-6 e-justice
3- International ICT indictors and readiness models (ITU IDI and EIU Digital Economy)

After defining and verifying this framework, 93 indicators were proposed. For each indicator, definition of that indicator, desired target for that indicator in each year of the Fifth Development Plan, measurement method and roles and responsibilities related to that indicator has been defined. In phase 3, measurement of indicators was performed for determining the value of each indicator in the first year of the plan. According to this measurement, some definitions and/or measurement methods were modified. Some of the indicators were measured by Statistical Center of Iran (SCI).

2. Organizational Structure for IMI

One of the key compoents of IMI is the organizational structure that is responsible for governing the initiative, managing the process and performing the necessary activities for realizing IMI in the country. In designing the the organizational structure and the national coordination mechanisms and processes, we have adopted the templates and supporting mechanisms that has been proposed UNSD National Quality Assurance Framework.

In the degined strcuture, Information Technology of Iran (ITO) is a governing body and in this organiztion, Strategic Planning and Montoring Center (SPMC) is a managing body for IMI that performs all the planning and execution activities for IMI.

As discussed in the Joint ITU-UNCTAD Capacity Building workshop for ICT measurement for Iranian delegation in October 2012, ITO has mandated by the ICT ministry to coordinate the production and dissemination of ICT statistics in Iran. It was recommended by ITU-UNCTAD that a national coordination mechanism should be established led by ITO which brings together regularly all stakeholders involved in ICT statistics. For using all capacities in the country and for a better coordination, ITO has established the IMI National Coordination Committee. The members of this interagency committee are representative from the related ministries, Statistical Center of Iran, Communication Regulatory Authority, ITO consultants and other related stakeholders. The main task of this committee is high-level planning, making high-level decisions, national coordination among the data sources, resolving conflicts and facilitaing the process. Also, there is another consultancy committee for giving consultancy, reviewing the results, auditing and verifying the collected data and finalizing and approving the final annual report of IMI.

All organizational bodies (e.g. ministries, organizations, etc.) that act as a data source in the data collection process should introduce a representative and contact point to ITO. This contact point acts as a coordinating body in each responsible organization for collecting, aggregating, verifying and reporting the data to ITO according to the defined set of indicators related to that organiztion. The budget for collecting and processing the needed data in each organization should be allocated in the annual budget of that organization.

3. International Communications for IMI

One of the key components of IMI is international communication. The objective of international communications in this domain is optimizing information flow among Iran and international stakeholders of IMI. Effective and efficient international communications creates a sound and clear image of Iran and helps IMI national stakeholders to take advantage of international experiences and best practices. Providing accurate and up-to-date information in response to the request of international bodies, participating in international events, participation in international workshops, active participation in the forums, preparing needed reports for reporting to the international bodies are among the most important activities in this area. Till now, the following activities have been done by ITO:

- Answering various ITU BDT questionnaires such as short questionnaire, long questionnaire, 2013 WSIS targets, and ICT Price Basket 2013.
- Continuos interaction with ITU-D for providing the needed information and using the existing experinces and best practices.
- Conducting ICT Measurement workshop in WSIS Forum 2012 (17 May 2012) for reporting the progress in Geneva.

- Active participation in a two days joint ITU-UNCTAD Capacity Building workshop on ICT indicators for the Iranian delegation in October 2012 in Geneva.
- Active participation in WSIS Forum.

4. Capacity development for IMI

Capacity development is another component of IMI. Capacity building in at this stage and in this context is the development of conditions that allow individuals to build and enhance existing ICT measurement knowledge and skills. Conducting necessary trainings for the organizational bodies that are involved in IMI processes, preparing the needed content for capacity development (e.g. training material, awareness and communication material, etc.), conducting national and regional capacity development workshops, translating and publishing international publications in Persian language, and preparing analytical report are among the most important activities in this area. ITO has done the following activities till now:

1- Analyzing the Measuring the Information Society 2012 report for extracting best
2- Translation of Measuring the Information Society 2012 report to Persian.
3- Translation of Measuring the Information Society 2012 Executive Summary to Persian.
4- Translation of Information Economy 2011 report to Persian.
5- Translation of Information Economy 2012 report to Persian.
6- Translation of ITU Handbook for the Collection of Administrative Data on Telecommunications/ICT, 2011.

ITO have planned to use international consultancy and organizing workshops and training courses about ICT measurement in Iran.

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